

Claims

1. (Amended) A method for manufacturing a silicon single-crystal layer comprising a step for performing a thermal processing operation in which a thermal
5 annealing operation is performed for 1 (one) to 30 seconds time in an atmospheric gas which is formed by a hydrogen gas, or an inert gas, or a mixture gas of these gases in a temperature of 600 °C to 950 °C.

2. Deleted

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3. A method for manufacturing a silicon single-crystal layer according to Claim 1 wherein the silicon single-crystal layer to which the thermal processing operation is performed is formed by a silicon wafer in which an agglutinate which is cut from an ingot which is formed by a perfect area [P] does not exist under condition that an area is
15 indicated by [I] in which an interstitial silicon-type point defect exists in an ingot of the silicon single-crystal dominantly, an area is indicated as [V] in which a vacancy-type point defect exists dominantly, a perfect area is indicated by [P] in which the agglutinate of the interstitial silicon-type point defect and the agglutinate of a point defect do not exist.

20 4. A method for manufacturing a silicon single-crystal layer according to Claim s wherein the thermal processing operation is performed after performing a grinding processing operation for the silicon single-crystal layer.

5. A method for manufacturing a silicon single-crystal layer according to Claim 4
25 wherein the thermal processing operation is performed at a temperature 600 °C to 800 °C.

6. A silicon single-crystal layer which is manufactured by a method for manufacturing a silicon single-crystal layer according to Claim 1 wherein a quality of a surface is improved by the thermal processing operation.